

**IS THE EXPEDITIONARY AEROSPACE FORCE THE
RIGHT APPROACH FOR THE AIR FORCE AS WE ENTER
THE 21ST CENTURY?**

**A MONOGRAPH
BY
Lieutenant Colonel Richard D. Beery
United States Air Force**



**School of Advanced Military Studies
United States Army Command and General Staff
College
Fort Leavenworth, Kansas**

AY 98-99

Approved for Public Release Distribution is Unlimited

DTIC QUALITY INSPECTED 4

19991109 046

REPORT DOCUMENTATION PAGE

Form Approved
OMB No. 0704-0188

Public reporting burden for this collection of information is estimated to average 1 hour per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Washington Headquarters Services, Directorate for Information Operations and Reports, 1215 Jefferson Davis Highway, Suite 1204, Arlington, VA 22202-4302, and to the Office of Management and Budget, Paperwork Reduction Project (0704-0188), Washington, DC 20503.

1. AGENCY USE ONLY <i>(Leave Blank)</i>	2. REPORT DATE 27 May 1999	3. REPORT TYPE AND DATES COVERED <i>Monograph</i>	5. FUNDING NUMBERS
4. TITLE AND SUBTITLE <i>Is the Expeditionary Aerospace Force the right Approach for the Air Force as we Enter the 21st Century?</i>		6. AUTHOR(S) <i>Lt Col Richard D. Beery</i>	
7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES) Command and General Staff College School of Advanced Military Studies Fort Leavenworth, Kansas 66027		8. PERFORMING ORGANIZATION REPORT NUMBER	
9. SPONSORING / MONITORING AGENCY NAME(S) AND ADDRESS(ES) Command and General Staff College School of Advanced Military Studies Fort Leavenworth, Kansas 66027		10. SPONSORING / MONITORING AGENCY REPORT NUMBER	
11. SUPPLEMENTARY NOTES			
12a. DISTRIBUTION / AVAILABILITY STATEMENT <i>APPROVED FOR PUBLIC RELEASE: DISTRIBUTION UNLIMITED.</i>		12b. DISTRIBUTION CODE	
13. ABSTRACT <i>(Maximum 200 words)</i> <i>See Attached</i>			
14. SUBJECT TERMS <i>EAF Expeditionary Aerospace Force AEF Air Expeditionary Force</i>		15. NUMBER OF PAGES <i>57</i>	16. PRICE CODE
17. SECURITY CLASSIFICATION OF REPORT <i>UNCLASSIFIED</i>	18. SECURITY CLASSIFICATION OF THIS PAGE <i>UNCLASSIFIED</i>	19. SECURITY CLASSIFICATION OF ABSTRACT <i>UNCLASSIFIED</i>	20. LIMITATION OF ABSTRACT <i>UNLIMITED</i>

SCHOOL OF ADVANCED MILITARY STUDIES
MONOGRAPH APPROVAL

Lieutenant Colonel Richard D. Beery

Title of Monograph: *Is the Expeditionary Aerospace Force the Right Approach for the Air Force As We Enter the 21st Century?*

Approved by:

Raymond O. Knox Monograph Director
COL Raymond O. Knox, M.Ed.

 LTC Robin P. Swan, MMAS Director, School of Advanced Military Studies

Philip J. Brookes Director, Graduate Degree
Philip J. Brookes, Ph.D. Program

Accepted this 27th Day of May 1999

ABSTRACT

IS THE EXPEDITIONARY AEROSPACE FORCE THE RIGHT APPROACH FOR THE AIR FORCE AS WE ENTER THE 21st CENTURY? By Lt Col Richard D. Beery, USAF, 43 pages.

The end of the Cold War brought significant repercussions to the U.S. military. Budget decreases, force structure reductions, and the change in national security strategy from containment to engagement all led to a significant increase in USAF deployments. Now, USAF personnel feel they deploy too often, with little notice, causing a decrease in readiness, reduced quality of life, and retention problems. Air Force leaders worked for several years building a plan to meet theater commander-in-chief requirements, reduce the tempo, and take advantage of the Air National Guard and Air Force Reserve contributions.

To continue providing the theater commander-in-chief with a rapidly deployable, yet effective force to fulfill the new national security strategy, the Air Force Chief of Staff announced plans to develop the Air Force into an Expeditionary Aerospace Force (EAF). The EAF concept calls for organizing active duty, Air National Guard, and Air Force Reserve units into ten Air Expeditionary Forces (AEF) and two rapid response wings. The AEFs and rapid response wings will have a formal schedule to be available for contingency deployments. The Air Force Chief of Staff anticipates a byproduct of the formal scheduling and the addition of Guard and Reserve forces is reduced tempo across the Air Force and improvements in readiness, quality of life, and retention.

After examining command and control, organizational structure, and personnel issues the reader will find the EAF will be responsive and efficient for contingency operations. The force can be tailored to the specific requirement and will be lean, to facilitate deployment. Integration of the Air National Guard and Air Force Reserve into the EAF will initially help spread the workload and reduce the tempo for active forces. However, implementation of the EAF plan will produce several problems.

Problems in the command and control arena and with the structure itself can be corrected. But the high tempo for many units cannot be overcome, because there are not enough aircraft or personnel to meet all requirements. Additionally, Guard and Reserve personnel will increase their deployment rates, which could lead to more retention problems in the Guard and Reserve. With fewer Guard and Reserve personnel, the active force will increase deployments to compensate. Ultimately, while the Air Force will become more responsive and effective, the major goal to reduce tempo will not happen for a significant portion of Air Force personnel.

TABLE OF CONTENTS

	Page
I. Introduction	1
Problem, Significance, and Background	2
Methodology	8
II. Expeditionary Aerospace Force Concept.....	9
Command and Control	10
Operational Forces	12
Support Organization	15
Rotation Schedule	16
III. Command and Control.....	19
Positive Aspects of the Command and Control Plan	19
Negative Aspects in the Command and Control Plan	21
IV. Organizational Structure.....	23
Structural Advantages	23
Structural Problems	27
V. Personnel Issues.....	30
Positive Personnel Aspects	32
Negative Personnel Aspects	33
VI. Conclusion.....	37
Endnotes.....	44
Bibliography.....	49

I. INTRODUCTION

The flexibility of an air force is indeed one of its dominant characteristics . . . Given centralized control of air forces, this flexibility brings with it an immense power of concentration which is unequaled in any other form of warfare.

Air Marshall Sir Arthur Tedder

On 4 August 1998, General Michael Ryan, Air Force Chief of Staff (CSAF), announced plans to reorganize the entire Air Force into an Expeditionary Aerospace Force (EAF). The general's purpose for this reorganization was threefold. First he wanted to ensure the Air Force continued to provide U.S. military commanders-in-chief the right kind of air power as quickly as possible, for any contingency, from humanitarian missions to combat operations. Second, he wanted to reduce deployment tempo by building more stability and predictability into deployment scheduling. Third, he felt a need to take full advantage of possible contributions from the Air National Guard and the Air Force Reserve.¹

In crafting the EAF, General Ryan sought to better define an expeditionary force. An update to joint publications indicates an expeditionary force is "an armed force organized to accomplish a specific objective in a foreign country."² A standard dictionary defines an expedition as "a long march or voyage made by military forces to a scene of battle."³ These two book definitions were too broad for the EAF; General Ryan's intent was much more specific as to what an expeditionary aerospace force is and what it will do. The basic idea of the EAF, in General Ryan's mind, is to formally assign all deployable Air Force assets (except the weapons systems with small numbers and strategic airlift) to one of ten Aerospace Expeditionary Forces (AEF). The AEFs will be put on a rotational schedule to be on-call for contingency missions. When a deployment is required, the on-call AEF will tailor its force to match the requirement. The AEF will deploy and be ready to commence operations within 48 hours. Each AEF will deploy with

seven days of supply and rely heavily on a reachback capability for operations and logistics support. The structural changes will be matched with a new mindset to keep the EAF light, lean, and lethal. Even with these extensive changes, the general idea of an expeditionary aerospace force is not new.

In the 1950s, the Air Force built a composite air strike force, which was “uniquely capable for engaging in a limited war.”⁴ This strike force was able to “be in action against aggression anywhere in the world within a few hours. Air strike forces, self-sustaining for initial operations, [were] capable of arriving at their destination in a completely combat-ready condition.”⁵ The concept was expanded in 1961 when the nation formed the United States Strike Command. Its mission was to maintain a reserve of combat-ready air and land forces to reinforce other unified commands as well as execute contingency operations as directed by the Joint Chiefs of Staff.⁶ Strike Command Became Readiness Command and then in the early 1980’s became the Rapid Deployment Joint Task Force.

Clearly, the Air Force has experience performing expeditionary missions. But there is a difference between the forces of the past and the expeditionary force General Ryan plans to implement. The EAF plan provides a formal structure to utilize all Air Force capabilities, including the Air National Guard and the Air Force Reserve. It will compel all personnel to think in terms of a lean, rapidly deployable, yet effective force. And it may yield a benefit of greater stability for Air Force personnel.

Problem, Significance, and Background

The specific implementation plan for the EAF is still under development, however, the overarching concepts and intentions were announced. Implementation of the EAF will significantly change the Air Force, as a way of thinking, training, and structuring for future

contingencies. This monograph will examine the EAF concept to determine the advantages and disadvantages of its implementation. It will answer the question: Is the Expeditionary Aerospace Force concept the right approach for the Air Force as we enter the 21st century?

As we enter the next century, we envision a military where the drawdown is complete. The budget is stabilized and there are no major wars. More and more, the military is being used to perform peacekeeping and humanitarian missions. Of course the military must be ready to fight a major conflict, but there are only a few countries with significant modern militaries. Since this new concept will be implemented by 1 Jan 2000, it is very important the Air Force implements it properly. Potential problems should be addressed now, so they will not be a surprise later. The EAF is such an encompassing program that it will be difficult to turn back once started. To understand the genesis of the EAF we must look back to the end of the cold war.

In the late 1980s it became evident the Soviet Union was having severe internal problems. The threat of a confrontation with the Warsaw Pact became less and less likely. Congress, seeing a great political and economic opportunity, began calling for military budget cuts. In late 1989, to keep pace with the changing world balance of power, the newly assigned Chairman of the Joint Chiefs of Staff, General Colin Powell, felt "the focus of strategic planning should shift from global war with the Soviet Union to regional and contingency responses to non-Soviet threats. This strategy could best protect US security interests and maintain US global influence in an era of diminished resources."⁷ As General Powell developed his plan, he felt significant reductions in force structure and in forward-stationed forces were the best way to cut budgets. But to retain U.S. superiority, the military needed "ready, flexible, mobile, and technologically superior conventional forces."⁸ After work with his staff, General Powell formulated what he called the Base Force, planning for significant cuts of about 25 percent of the military. The Air

Force Chief of Staff at that time, General Michael Dugan, enthusiastically endorsed the base force concept, and with his emphasis the USAF began implementing the cuts.⁹ These force structure and budget cut discussions were temporarily delayed when President George Bush deployed military forces for Operation JUST CAUSE and then for Operations DESERT SHIELD and DESERT STORM. However, in 1991 the force structure cuts resumed.

At the end of the Cold War, the USAF had approximately 7000 combat aircraft and the National Guard and Air Force reserve had another 2200 aircraft.¹⁰ Active duty personnel numbered over 600,000 and were based throughout the world. Combat planning prior to the fall of the Berlin Wall focused primarily on war with the Warsaw Pact nations. Most units stayed in garrison, training with the other squadrons on the same base. They rarely trained with different type aircraft and supported few exercises or deployments. They prepared to fight their air battles in that wing organization. If war broke out, CONUS based wings would deploy to preplanned forward locations to conduct battle against the enemy. The strategy emphasized forward-based forces with huge stockpiles of supplies to support the reinforcing units, which caused the USAF to maintain more than 50 overseas bases. The cutbacks of the 1990s reduced numbers of aircraft and personnel by about 35 percent leaving "the number of bases and people abroad [at] one third of what it was 10 years ago."¹¹

The dissolution of the USSR also forced the United States to reevaluate its National Security Strategy (NSS). After 1989, the U.S. "security environment changed from a definite and known adversary threatening our national survival to unpredictable opponents and unknown challenges which affect our vital interests."¹² The May 1997 NSS document clearly indicates the expanded responsibility of our nation and the uncertain nature of our requirements. Specifically, it states (emphasis mine):

Most aspects of our strategy are focused on *shaping* the international environment to prevent or deter threats. Diplomacy, international assistance, arms control programs, nonproliferation initiatives, and overseas military presence are examples of shaping activities. A second element of this integrated approach is the requirement to maintain an ability to *respond* across the full spectrum of potential crises, up to and including fighting and winning major theater wars. Finally, we must *prepare today* to meet the challenges of tomorrow's uncertain future.¹³

The new strategy to shape, respond, and prepare for the future proliferated throughout the military, reflecting the Department of Defense emphasis for the late 1990s and into the 21st century. Clearly there are many ways to meet the national strategy requirements, such as expanding overseas bases, reliance on maritime forces, etc. But the most desirable plan is to use our rapidly deployable stateside based forces to provide the means to shape the international environment and ensure national security.¹⁴ NSS modifications drove changes to the National Military Strategy (NMS) and laid the foundation for future force planning to meet the anticipated need for rapid deployment to meet the theater commander-in-chiefs needs.

The NMS focused Department of Defense policy to support rapid mobility with a lethal force and identified the strategic concepts of "Strategic Agility, Overseas Presence, Power Projection and Decisive Force to govern the use of military forces to meet the demands of the strategic environment."¹⁵ The NMS defined strategic agility as the "timely concentration, employment, and sustainment of US military power anywhere at our own initiative, at a speed and tempo our adversaries cannot match."¹⁶ Power projection is the "ability to rapidly and effectively deploy and sustain U.S. forces in and from multiple, dispersed locations."¹⁷ Decisive force is the "commitment of sufficient military power to overwhelm all armed resistance in order to establish new military conditions and achieve political objectives."¹⁸ With the NMS articulated, the military departments and the Joint Chiefs of Staff were then able to plan for the future.

In the mid-1990s, the Chairman of the Joint Chiefs of Staff published his Joint Vision 2010 to articulate the future requirements for the military. Joint Vision 2010 specified “power projection from the United States, achieved through rapid strategic mobility, will enable the timely response critical to our deterrent and warfighting capabilities.”¹⁹ It further indicated the U.S. military would rely on an overseas presence and the use of mobile forces for future operations. The 1998 Strategic Assessment echoes a similar sentiment when it states, “U.S. defense strategy is focused on protecting overseas interests and require[s] the capacity to project military power to key theaters.”²⁰ The “bottom line” of all these policy documents is that the U.S. military must be ready for a wide range of missions, be able to deploy anywhere on the planet and operate immediately once deployed. The military definitely moved into a posture of responding to any contingency, whether it is humanitarian, peacekeeping, or a major conflict.

As the Department of Defense reduced its force structure, the nation called upon the military more and more for numerous contingencies. Forces deployed on a continuing basis to NorthWest Asia (NWA), South West Asia (SWA) and to support peacekeeping in Bosnia. Forces also went to places like Somalia, Bangladesh, Thailand, Cambodia, Rwanda, and Ethiopia for evacuation operations and humanitarian assistance. Other Air Force missions included “more than 500 humanitarian missions to parts of the Soviet Union since 1992; 100 humanitarian missions to Africa since 1990; and 60 counternarcotics mission in Latin America in 1996.”²¹ To facilitate our ability to shape the international environment, exchange training and exercises increased. This significant increase in deployments led to tremendous dissatisfaction among Air Force personnel because people were gone from home station more than ever before.

The dissatisfaction among the Air Force personnel manifested itself in the form of reduced retention and critical shortages in several specialties. Headlines over the past few years confirm

the people in the military are exiting in record numbers. The Air Force is finding it very difficult to retain highly trained personnel. New accessions are extremely low and many of those people staying in the service are dissatisfied. Excessive workload is one of the most significant reasons people give for leaving the Air Force.²² Air Force members want time with their families, they want to grow professionally, and they want to be sure there is direction in their careers. Many Air Force specialties are highly technical and require a significant expenditure of time and money to train personnel. For example, a pilot will generally require a year for initial training, followed by another 6-12 months for mission qualifications. The expense of training just one pilot can easily amount to millions of dollars. Right now there is a shortage of 700 pilots and this number is expected to exceed 2000 in the next four years.²³ Numerous other specialties are in much the same situation as the pilots.

The increased workload is not limited to the people who deploy often or on short notice. Personnel left behind must work harder at home station to compensate for those deployed, especially in support functions. This problem becomes more acute when units are tasked to rotate into the contingency area several times. While deployed, personnel cannot train in the full spectrum of mission essential tasks, causing a reduction in readiness. The additional work and constant deployments ultimately cause a reduction in readiness and a decrease in quality of life.

Air Force leaders evaluated the requirements from all the strategy documents, using the guidance to focus restructuring efforts and future force planning. Throughout planning, the Chief of Staff ensured the Air Force would give the combatant commander a set of relevant and complementary capabilities. Furthermore, leaders recognized the inherent capabilities of the Air Force to engage globally, using both lethal and non-lethal means, and to employ air and space power aggressively to meet the nation's needs for presence and power projection.²⁴ To that end,

the Air Force developed its core competencies, which include air and space superiority, global attack, rapid global mobility, precision engagement, information superiority, and agile combat support.²⁵ These core competencies provide the basic focus areas, which the Air Force will use to organize, train, and equip its personnel.

The natural outgrowth of the national and Department of Defense policy guidance was to develop a rapidly deployable expeditionary force with a wide range of capabilities. This force would provide the theater commanders-in-chief with the ability to complete any mission. The Air Force leadership took that relatively simple concept and built on it, attempting to correct some of the personnel issues plaguing the Air Force. In the end, they felt by integrating the total force into an EAF, all personnel could share the load and with a schedule for on-call periods, the people would get stability and predictability.

Methodology

To examine the EAF, this monograph will initially present a detailed explanation of the proposed EAF concept as envisioned today and then evaluate the three major components of the EAF; command and control, organizational structure, and personnel issues. The command and control section will evaluate the reachback concept and structure, in-flight command and control, discuss leader training, and the interface with the U.S. Army. The organizational structure portion will indicate how the EAF meets the goals of Joint Vision 2010 and then identify the pros and cons of the structure. And the personnel issues section will provide an analysis of the expected tempo reduction and present other possible issues, which the EAF may create. After presenting and analyzing the information in each of the major categories, the conclusion will weigh the advantages and disadvantages of the EAF concept to determine if this is the right approach for the Air Force of the 21st century.

II. EXPEDITIONARY AEROSPACE FORCE CONCEPT

To commit the youth of our nation to lay their lives on the line, we must at least take the viewpoint to equip them with the best weapons that time and technology can provide, and provide them with military leaders who are trained and encouraged to pursue the most innovative approaches to operations and tactics. With these elements in place, the remaining task is to train, train, train, under the most realistic conditions that can be imposed for the military operations that appear most likely.

General Curtis LeMay

In his announcement on 4 Aug 98, General Ryan, explained, in general terms, his plans for the EAF. His vision is to develop an expeditionary mindset of the force and reorganize the force to support the expeditionary concept. Even though the Air Force has been “expeditionary” for quite some time it did not develop the mindset and or a formal structure in the past. And now the Air Force must use the post cold war forces to implement the EAF plan.

As of fiscal year 1996, the active duty Air Force eliminated approximately 2200 aircraft leaving a force just over 1900 fighter, interceptor, attack, and bomber aircraft, with an additional 2777 specialized aircraft.²⁶ The reserve and guard have another 1923 aircraft. The EAF plan calls for the reorganization of those aircraft and supporting units currently based throughout the world, into ten Aerospace Expeditionary Forces (AEF). Within the AEFs, specific units will be earmarked for humanitarian missions. Two additional wings will be designated as rapid response wings.

Each AEF will be able to deploy rapidly with trained and ready, modern and capable forces, which are lean, agile, and appropriately structured for the mission. This force should be capable of starting combat operations within 48 hours of an execute order. Since the AEF will need to respond to contingencies throughout the world it will need to be globally deployable. “Under the new plan, a typical AEF can be a package of fighters, bombers, tankers, tactical airlift, radar and electronic-warfare aircraft, along with space, intelligence, surveillance and reconnaissance

assets.”²⁷ To ensure a U.S. presence arrives at the crisis site quickly, the force must be able to respond rapidly with fully trained personnel. These personnel will be prepared to work in austere environments as well as built-up bases. The AEF will possess a wide range of capabilities, which can be tailored to meet the specific requirements of the assigned mission.

The Air Force intends to prepare the AEF to operate in the full spectrum of operations, from peacetime engagement missions, such as disaster relief, up to and including a major theater war. The AEF must be able to support joint or coalition operations, as well as U.S. only missions.

General Ryan explains the underlying AEF requirement is to “provide U.S. military commanders-in-chief the right force at the right place at the right time.”²⁸ The CSAF plan will assign active duty, Air National Guard, and Air Force Reserve assets to specific AEF organizations in order to make available to combatant commanders a wide range of capabilities resident in an organization specifically sized to meet the airpower needs of that commander. Each AEF will have a command and control element, the operational forces (primarily manned aircraft but could include unmanned aerial vehicles, ground control, or special tactics personnel), and support elements. Each AEF will be placed on a rotational schedule to assume on-call duty for 90 days out of every 15 months.

Command and Control

To coordinate efforts of each AEF, it must have a robust command and control structure. In the words of Major General Tom Waskow, 13 AF Commander; “as we posture ourselves to go into the world of aerospace expeditionary forces, we need to figure out the command and control part of it so the young aircrews can do what they do best.”²⁹ In all cases, the command and control element will effectively coordinate contingency operations within subordinate units and with higher headquarters. They may deploy with either a large or small force of several different

type aircraft, with differing capabilities and requirements. This command and control element is called the Air Operations Center (AOC).

The AOC is intended to be the senior operations center for the command and control of the AEF. The fundamental principle of this system is centralized planning and control through the AOC, with decentralized execution by subordinate organizations and elements.³⁰ To meet all of its requirements, one might expect a large staff with a vast array of command and control hardware. In the past, the AOC moved forward with the deploying force to perform planning and to control the air battle. During the Persian Gulf War the forward air operations center was staffed by 1500 to 2000 people and it took about 25 C-17 loads to deploy.³¹ Clearly, this is a significant requirement for airlift. The base support requirements for the large AOC at the forward base is also significant. In contrast, the EAF approach to making the deploying force lean is to leave a large part of the command and control function at home station and connect them to the deployed force with robust communications capabilities.

At home station the AEF will set up a Rear Air Operations Center (RAOC). The RAOC will have a direct line of communications to the forward AOC using video teleconferencing, the internet, radios, telephones, and other means of data transfer.³² The RAOC will use the same high technology communications to stay in contact with other government organizations such as intelligence centers, space operations centers, and airlift operations centers. By using state of the art communications, the forward AOC can deploy with a minimum of personnel and equipment and still have access (reachback) to the most current data and expertise in any topic.

A total of ten wings, one for each AEF, will be designated as the lead organization for each AEF. That wing will have the role of building the core command and control structure. Most other units throughout the world will be assigned to one of the AEFs. The aircraft and crews

assigned to each AEF will come from squadrons in different wings throughout the Air Force. While overseas units from the Pacific Command and European Command will be assigned to AEFs, squadrons at Osan and Kunsan Air Bases in Korea will not be assigned to an AEF because they are dedicated to the defense of the Korean Peninsula.³³ The lead wing will draw on assigned AEF units to expand its staff as needed to support deployments.

While at home station, the lead wing also coordinates consolidated training with the other units in the AEF, including Air National Guard and Air Force Reserve units. Getting all units from each AEF together for training is extremely valuable, especially at major combat exercises like RED FLAG, MAPLE FLAG, and COPE THUNDER. The lead wing will not exercise day to day command over the AEF assigned squadrons. They will take operational control of assigned squadrons during deployments and exercises.

Operational Forces

The basic AEF will consist of about 175 assigned and attached aircraft (see Table 1). Of these, 75 aircraft are identified as the first to deploy. Another 100 on-call aircraft can supplement this basic force, if additional capabilities are required. In addition, a number of other highly specialized aircraft, known as low density-high demand (LDHD) assets, which are not assigned to any AEF, could be attached to the deploying AEF if they were needed. The active duty force, Air National Guard, and Air Force Reserve, are fully integrated into the AEF force structure.

The AEF is designed around capabilities, not specific type aircraft because many aircraft can perform several different missions. The inherent capabilities of the AEF include air-to-air combat, precision guided munitions delivery, air interdiction, suppression of enemy air defense,

close air support/anti-armor, surveillance/command and control, intra-theater airlift, combat search and rescue, operational support airlift, and air refueling.

The on-call portion of the AEF adds aircraft to each of the above listed capabilities and adds capability to conduct strategic attack and stealth operations. When necessary to meet electronic warfare requirements, the AEF will rely on the U.S. Navy to attach EA-6 aircraft from jointly manned squadrons to augment specific AEFs.

AEF Force Composition (Notional)

<i>Forward Deployed</i>	<i>Capabilities</i>	<i>On Call</i>
18 x F-15C	Air-to-Air	6
10 x F-15E	PGM	14
8 x F-16CJ	SEAD	10
12 x A-10 (6 Units)	Anti-Armor/CAS	14 (ANG)*
3 x E-3	Surveillance/C2	0
3 x HH-60	CSAR	9
8 x C-130 (2 Units)	Intra-Theater	10 (ANG)*
4 x KC-10	Air Refueling	2
3 x KC-135 (2 Units)	Air Refueling	7 (AFRC)*
3 x KC-135 (2 Units)	Air Refueling	7 (ANG)*
3 x C-21A	Transportation	6
0 x B-52/B-1	CALCM/SA	6
0 x B-2	Stealth	3
0 x F-117	Stealth	6

```

graph LR
    A[75] --> C[175 Total]
    B[100] --> C
  
```

Table 1. Notional Air Expeditionary Force³⁴

Within the Air Force, there are enough fighters, bombers, tankers, and transport aircraft to support the AEF plan. However, the low density-high demand aircraft do not exist in enough numbers to be assigned to an AEF (see Table 2). Even though not assigned to specific AEFs,

these aircraft perform highly specialized tasks essential to air operations and will be called as needed to deploy with the AEFs. The most common LDHD assets include command and control, surveillance, combat search and rescue, and electronic warfare aircraft. Even though General Ryan does not normally include Special Operations aircraft as LDHD in his briefing, this monograph will, because they also have small numbers and they are often used for conventional operations such as search and rescue, close air support, intra-theater airlift, and surveillance.

LOW DENSITY, HIGH DEMAND AIRCRAFT

<u>Aircraft Type</u>	<u>Number in USAF</u>	<u>Mission</u>
E-3	26	Command and Control
E-8	2	Command and Control
U-2	27	Reconnaissance
RC-135	14	Reconnaissance
HH-60	39	Combat Search and Rescue
HC-130	9	Helicopter Air Refueling
ABCCC/Compass Call	16	Command and Control
MH-53J	35	SOF
AC-130	16	SOF Gunship
MC-130E/H	30	SOF
MC-130P	23	Helicopter Air Refueling
EC-130H Commando Solo	3	Psychological Operations

Table 2. Low Density, High Demand Aircraft.³⁵

Both the Air National Guard and the Air Force Reserve are very interested in the EAF concept and want to be active participants. As envisioned currently, the Air National Guard will contribute A-10 close air support, C-130 airlift, and KC-135 air refueling aircraft to each AEF. The Air Force Reserve is expected to contribute KC-135 air refueling aircraft. Additionally, the Air National Guard is converting some units to training squadrons so they can train their own pilots and take the burden off the active duty. Other Guard units are converting from coastal

defense (only air-to-air qualified) to general purpose (both air-to-air and air-to-ground qualified) to make them more usable and flexible in the AEF structure.³⁶

Support Organization

To run an air base, the support structure must include force protection, base infrastructure, services, transportation, aircraft maintenance, medical, comptroller and contracting functions. Currently, for contingency deployments the support personnel are drawn from the base organizations of active bases. Since these bases do not reduce their operations, the absence of support personnel causes an additional workload placed on the remaining support personnel at the base. To help alleviate this problem General Ryan plans to generate about 5000 support manpower positions. This number is possible by switching authorizations from specialties less likely to deploy, competitive sourcing and privatization, and some headquarters reductions. The new positions would be spread across roughly 29 bases to ease the tempo for the support forces.³⁷

Like the operational forces, the support forces will be tailored to the specific mission requirements. And, much like the Air Operations Center, the support function will build a forward support center and a rear support center using reachback capabilities. This high technology connectivity will allow deployed units to access “aircraft maintenance histories, supply requisitions, and personnel information. Physicians located thousands of miles away from hostilities can assist medical corpsmen in diagnosing and even operating on patients by using telemedicine.”³⁸ Reachback capability will allow support forces to deploy quickly with light packages and rely on home station support once they arrive at their forward location. “This activity, functionally separate from the war-fighting activities performed by the AOC, spans the [command and control] needs for a range of support activities.”³⁹

In addition, the support organizations are tailoring their force packages to become leaner and lighter also. For example, medical personnel are training with the Air Force's new Air Expeditionary Medical Support, called EMEDS. This small, mobile medical center designed to treat a small number of patients.⁴⁰ Other support organizations will pare down their packages and rely on the reachback capability and follow-on resupply.

Rotation Schedule

Designation of each AEF lead wing as well as the organizations and assets to be assigned to each AEF will be completed by 1 Jan 2000. At that time the AEFs will implement the rotation

AEF Notional Schedule

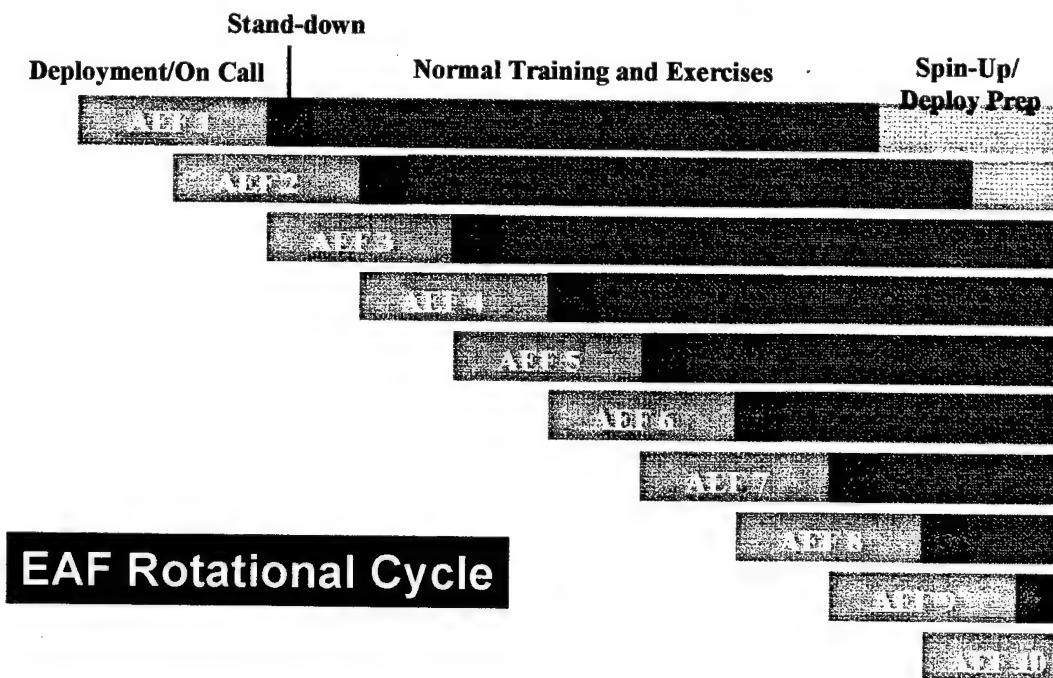


Table 3. AEF Rotation Cycle⁴¹

plans for their forces. The cycle for each AEF will be 15 months beginning with a deployment of 90 days (see Table 3). After the deployment and return to their home stations, the entire AEF will stand down for two weeks. Then they will begin requalification and proficiency training programs which will last for about 8 1/2 months. "Units assigned to AEFs will train as they will fight. During certain periods active, Guard and Reserve units will train together using integrated command and control provided by a lead wing plus command elements from constituent units."⁴² This training cycle should include some integrated training with many if not all of the AEF units. During the 8 1/2 months the AEF units will also perform required maintenance and modifications to the aircraft.

A few months prior to the next deployment the deploying personnel will receive AOR training, rules of engagement testing, and command post exercises. Then the cycle starts again with either a 90-day deployment, or an on-call status for the forces. While they are on call, the units and personnel are ready to deploy at a moment's notice. The goal is to be ready to mobilize to any place on Earth and begin combat operations within 48 hours of the execute order.

Currently the Air Force deploys forces to support South West Asia (SWA), NorthWest Asia (NWA), and Bosnia peacekeeping operations on a continuous basis. Maintaining support to these ongoing missions requires two AEFs at a time. To respond to other contingencies at another location, the Air Force announced plans to build two rapid response wings. "The 366th Wing at MT Home AFB, ID and the 4th Fighter Wing at Seymour Johnson AFB, NC will form the core of the wings, officially known as aerospace expeditionary wings, or AEWs."⁴³ The squadrons within these two wings will not be assigned to an AEF and these wings will not get any additional aircraft permanently assigned. Although the two rapid response wings, if deployed, may get additional units attached to them.

Major General Donald Cook, Director of Expeditionary Force Implementation, indicates each rapid response wing will be on call for 90 days at a time, which works out to be twice a year. They will be used for unexpected world events, rather than long running operations such as those in support SWA, NWA, or Bosnia.⁴⁴

Additionally, the Air Force recently announced one unit each from five different AEFs are designated to perform humanitarian missions. These units are primarily airlift and are well suited to provide humanitarian aid.

The EAF plan will affect virtually every member of the Air Force. It will prompt new ideas for deployment and sustainment as well as a complete restructuring of the forces to train together and deploy together. The next three sections of this monograph will examine the proposed command and control plan, the structure of the AEFs, and the personnel issues.

III. COMMAND AND CONTROL

A bulky staff implies a division of responsibility, slowness of action, and indecision, whereas a small staff implies activity and concentration of purpose.

General William T. Sherman

To provide the theater commander-in-chief with the most effective support and information superiority, the command and control function of the AEF must maximize the full range of command, control, communication, and computer capabilities existing within their force. In the past “units deployed on an ad-hoc basis into command and control structures unique for each operation.”⁴⁵ For the EAF to work, the command and control element will be standardized with expertise in all AEF weapons systems and be able to effectively control that capability. They must also be able to expand to absorb additional forces if needed. To help keep the deploying force leaner and lighter, the command and control element will deploy only the personnel and equipment needed.

Positive Aspects of the Command and Control Plan

A large reduction in the numbers of deploying personnel and the amount of equipment will come from a smaller command and control element. An important factor making the EAF light is “reachback.” Here, communications and information networks are key to linking the lean AOC with a wide array of rear echelon supporting activities. This lifeline provides critical, real-time mission data and information necessary to conduct operations in the theater.⁴⁶ A recent EAF experiment showed the forward center could consist of “115 command and control personnel deployed forward with the commander . . . supporting them were about 300 people at a RAOC . . . Using video teleconferencing, the internet, radios, telephones, and other means of data transfer, the forward based people could see and hear their counterparts at Langley.”⁴⁷ It only took two C-17s to move this AOC, placing only one fourth of the command and control

personnel forward, in a potential combat area. This huge reduction in manpower can be accomplished "because of the vast computer links now available to support operations, such as space and intelligence that are operating from their home bases."⁴⁸ Of course the operations centers can expand or contract to match the requirements of a specific deployment. Future plans anticipate deploying up to 95 percent less command and control military personnel and 80 percent less equipment to any combat area while still controlling all mission assets.⁴⁹

Another innovation for the AEF is an experimental command and control electronics package for aircraft. The package, called Speckled Trout, is actually a roll-on, roll-off command, control, communications, and computer package, which fits on standard aircraft pallets. Its purpose is to ensure the commander is kept fully apprised of the situation during the deployment and to allow for en route planning. When the package is unloaded at the deployment location, it becomes the core of the forward Air Operations Center. "Previously, JFACCs [Joint Force Air Component Commanders] have had largely 'dead' time in transit, able to communicate but not do much substantive planning or decision making based on real time data."⁵⁰ This aircraft package allowed the commander to keep up with intelligence, weather, mission planning, air defense integration, aircraft status monitoring, and command post functions as well as to stay in constant contact with all his forces during his transit time. With this up to the minute information, the commander evaluated targeting information, issued orders, and crafted the air tasking order.⁵¹ To further test the capabilities of the new command and control structure, bomber aircraft deployed from their home stations with weapons but no targets. In flight, the JFACC issued targeting instructions, which were programmed into the bomber weapons. A few minutes before weapons release, the JFACC changed the targets and gave the bombers new targeting data. "This information was updated in the bomber's systems which then scored direct hits on their

objectives on the weapons test range at Eglin AFB, FL. In flight targeting changes were also tested with fighters. Such capability is vital for rapid response to a fast changing battlefield or in missions such as Scud hunting.⁵² These innovations will provide the theater commander-in-chief with a potent command and control apparatus. It will remain light, yet effective. However, there will still be several problems to overcome.

Negative Aspects in the Command and Control Plan

Communications systems are a decisive point for any military force and an absolutely critical part of the command and control concept for the EAF is the reachback capability. In a major contingency operation, Army, Navy, Marine and Air Force units will likely be deployed to the theater together. Each will need the reachback capability creating a huge demand on the overall communications system. With such a demand, the net could be saturated, or in some situations, the enemy could interfere with the system. Either way, the inability to use the communications systems could cause significant problems or even mission failure.

A cornerstone of the command and control network for the EAF is the RAOC. Utilizing a rear operations center is a novel approach to contingency operations and will certainly reduce the deploying package. The lead wing will establish the RAOC in each AEF. Personnel from units assigned to the AEF are expected to augment the RAOC. But, some units may not be able to spare personnel because of the manpower shortages. Especially critical will be the members of the LDHD units, which are already task, saturated. Without the appropriate expertise in the RAOC, the overall mission could suffer.

Another issue with the RAOC is personnel will have a difficult time focusing on the deployed mission because they remain at their home station. They will go home each night and may still have a myriad of activities, both at home and at work, to draw attention away from supporting

the deployed force. Time zone differences between the RAOC and the deployed units could also cause problems with shift scheduling. The urgency to resolve issues can be lost since the RAOC is not in a combat area and not subjected to the same dangers as the forward AOC. For the RAOC to be effective, the personnel manning the facility must keep their attention focused on the deployed force and respond to each need as if lives depended on it.

A fourth concern is Air Force leaders are not prepared to command large forces with numerous different type aircraft and capabilities. They are well trained within their type weapon system, but when it comes to the uses of other weapon systems, especially LDHD assets they are not experienced. A robust staff will offset a lot of the problem, but cannot replace a knowledgeable leader. To effectively control the forces being provided, the leaders must be trained in expeditionary warfare and this training should start early in their career. As in the Marine Corps, expeditionary warfare must become an integral part of the Air Force. It needs to start not later than squadron officer school and carried through Senior Service School. Additionally, an AOC training program should be built similar to the Joint Task Force training program established by the U.S. Atlantic Command. A well-developed training program will instill the expeditionary mindset and improve the chance of success for future air force leaders.

A final command and control challenge is the integration of the Battle Coordination Detachment (BCD). Currently this unit is assigned at the theater headquarters to coordinate efforts between the air and land forces. The BCD works daily in peacetime with the theater air component staff to develop thorough contingency plans. Under the EAF concept, each deploying AEF will bring its own command and control element. This element has not trained with the BCD, which could reduce effectiveness in supporting ground forces.

IV. ORGANIZATIONAL STRUCTURE

To develop anything, the underlying thought and reason must govern, and then the organization must be built up to meet it.

Brigadier General William "Billy" Mitchell

The EAF provides a more formal structure than the expeditionary forces deployed to Korea in 1950, Viet Nam in the 60s, Operation JUST CAUSE in 1989 or even Operation DESERT SHIELD in 1990. However, as in the past, the most important concern of any military force is whether the structure will support the needs of the theater commander-in-chief. General Ryan explains the underlying requirement of the AEF is to "provide U.S. military commanders-in-chief the right force at the right place at the right time, whether the mission involved humanitarian relief or combat operations."⁵³ But in the past few months there have been several changes to the original concept. The addition of two rapid response wings and the designation of five units for humanitarian missions indicates the EAF concept is still evolving.

Structural Advantages

Joint Vision 2010 helps summarize the needs of the theater commander-in-chief as the primary operational concepts of dominant maneuver, precision engagement, full dimensional protection, and focused logistics.⁵⁴ The Air Force contribution to these military capabilities is its core competencies. The EAF structure and organization provides air and space superiority, global attack, precision engagement, rapid global mobility, and agile combat support. The other core competency of information superiority was already addressed as part of the command and control function.

The structure lends itself to air and space superiority by ensuring the force is necessary to allow both the freedom from attacks of enemy of enemy forces and the freedom to attack at will. The AEF enhances the global attack capability by including tanker aircraft in each AEF, which

will ensure the combat aircraft can reach any point on the globe quickly. Precision engagement is accomplished with the mix of aircraft and weapons, which allows each AEF to accomplish the full range of missions. Even though they focus on combat operations, each competency can be applied to the full range of contingency and humanitarian requirements. To meet the Air Force core competency of rapid mobility an important factor is the time required deploying a contingency force. General Ryan intends for the AEFs to deploy and be ready for operational missions within 48 hours of the order. The 48 hours goal is not unreasonable considering the force will be trained and on-call waiting for the order to deploy. Deployment times will be further cut “because while the deploying squadron’s people are busy with mobilization, paperwork and other details, a second squadron can get the deploying squadron’s planes and supplies ready to go.”⁵⁵ Agile combat support is improved through the reachback capability and immediate implementation of resupply.

The inherent capabilities within the AEF include the full range of airpower functions. These capabilities include counter-air, suppression of enemy air defense, air interdiction, strategic attack, and close air support to the ground forces. To facilitate the application of combat power they can also accomplish air refueling, search and rescue, airborne command and control, and reconnaissance. Each time the AEF deploys it will tailor its force to match the requirements. As shown in the previous section, each AEF will ultimately have 175 aircraft assigned and access to numerous other high demand platforms to accomplish the mission.

Speaking strictly in terms of numbers of aircraft and capabilities required for contingency missions, planners evaluated the requirements for airpower over past several years (see Table 4) and determined that two AEFs can cover the ongoing requirements. For future operations, the Air Force estimates a “typical contingency will require 75 planes and 6000 to 7000 troops.”⁵⁶ If

the contingency is a rapid response requirement then the Air Force will send one of the rapid response wings. If not, part of another AEF will deploy.

Framing the Operational Requirement

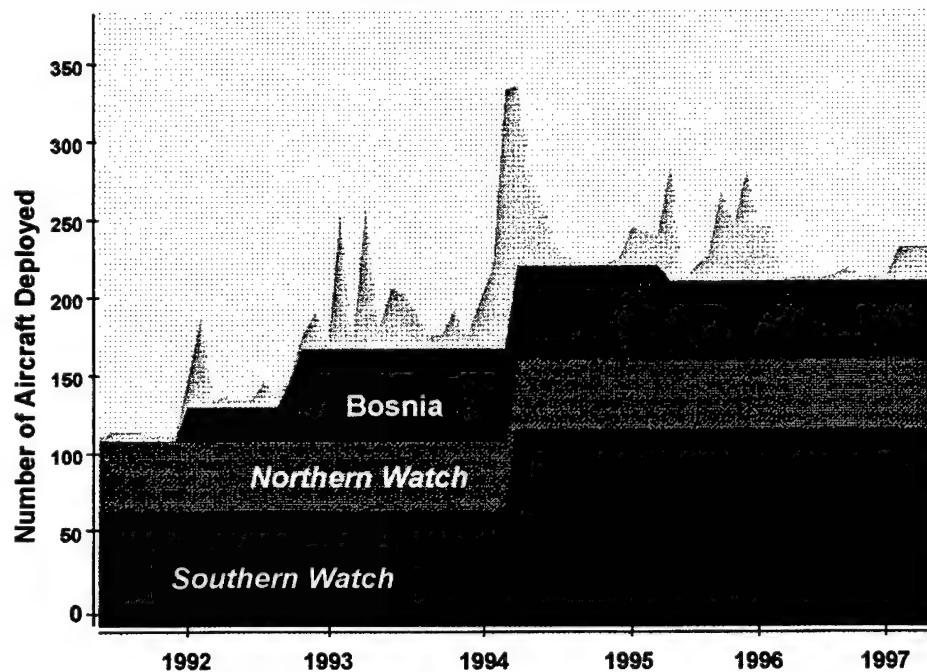


Table 4. Aircraft Required for Ongoing Contingency Operations.⁵⁷

If, after the first units deploy from the AEF, more aircraft are needed the Air Force will send the rest of that AEF. Likewise, if the combatant commander did not need the whole AEF, it could be tailored ensuring there was no excess burden on the deployment.

Overall, the EAF structure will support the commander-in-chief requirements very well, but “it cannot do it all.”⁵⁸ Even the staunchest airpower advocate will “freely acknowledge the strengths of airpower do not make ground or naval forces irrelevant or necessarily make airpower the preferred solution in all cases.”⁵⁹ Acting Secretary of the Air Force Whitten Peters

and Chief of Staff of the Air Force General Michael Ryan both believe the result of implementing the EAF program will be a more responsive force for the commanders-in-chief. By instituting a process for tailoring the AEF to each contingency, the air forces will be lighter, leaner and more lethal than before.⁶⁰

In analyzing the EAF, it would serve the Air Force well to compare it against a model of the U.S. Marine Corps. The Marine Corps started with an expeditionary force over 200 years ago and established the fundamentals. They are light, lean, and lethal and have a mindset, which facilitates their expeditionary approach to operations. Marine General Charles Wilhelm, the commander-in-chief for the U.S. Southern Command, has several ideas as to what an expeditionary force must be able to do. He believes an expeditionary force must:

- Quickly and easily go where there is no infrastructure and operate on arrival.
- Deploy and employ tailored forces and accomplish the mission without additional assets.
- Have immediate operational availability without reserve mobilization.
- Force structure for deployability, self-reliant and self-sustaining in all functions.
- Immediately deploy and employ balanced, combined arms components.
- Have educated, trained, and exercised specialists at all levels, all the time.
- Provide equipment maintenance at more than one location and far forward on the battlefield.
- Marshal and manage all supplies to make the force readily available.
- Accept exceptionally austere living conditions when necessary.
- Minimize potential adverse cultural and political impact.
- Have exceptional flexibility and initiative to solve problems with minimal support.
- Win the hearts and minds of indigenous people caught in the conflict or a disaster.
- Gain success where action delayed is action denied, and large bases are unacceptable.

- Not be a part time duty. It is a way of life requiring special attitudes and aptitudes.⁶¹

The ideas offered by General Wilhelm also describe the advantages of the EAF concept very well. By adhering to the EAF plan, Air Force units and personnel will build an effective structure for the expeditionary mission.

Structural Problems

Even though the basic structure of the AEF is sound and will support the theater commander-in-chief, there are several problems with the structure. Without corrective actions, these problems may extend the timeline of the mission or make success much more difficult. Potential problems will exist with support equipment, airlift, resupply, a lack of LDHD assets and a loss of flexibility for the theater commander-in-chief.

The first issue concerns a lack of support equipment. To deploy rapidly, each AEF must have a set of support equipment available. Not all units have their own deployable support equipment and each home station may not be able to support multiple deployments to different locations and still keep the base operational. While NWA, SWA, and Bosnia support units have equipment in place, contingency deployments to other parts of the world may reveal a severe shortage in support equipment. Without the equipment, support of the deployed force becomes tenuous at best.

Airlift for deployment and resupply may also pose a significant problem. With ongoing missions in Bosnia, SWA, and NWA as well as the normal day to day airlift requirements, strategic lift is currently difficult to schedule. These missions will continue into the foreseeable future making additional requirements almost impossible to handle. When another contingency occurs, airlift will be essential to ensure rapid deployment and both Air Force and Army units may need that airlift. With ever increasing requirements, the airlift may not be available. When

deployed, the AEF (and any other military forces) will certainly need resupply to operate, adding one more requirement to the saturated airlift system.

Third, because of the small numbers of LDHD assets, they cannot be assigned to the AEFs (except combat search and rescue) but they are often essential to successful operations. With many contingencies occurring simultaneously, some AEFs may not be able to obtain the LDHD assets. This could make mission success questionable.

A fourth problem revolves around the forward-based units in the Pacific and Europe. By assigning units forward based in Europe or the Pacific to an AEF, there will be a political as well operational impact.

On a political level, the assignment of overseas units to an AEF could cause a host nation problems if they wanted to maintain the appearance of neutrality during a deployment. Allowing U.S. aircraft to deploy from a base in another country could imply that nation supports the U.S. action, creating possible political concerns by foreign nations.

At the operational level, assignment of overseas-based squadrons to AEFs reduces the combatant commander's capability and flexibility. If a squadron based in either the Pacific or in Europe is assigned to an AEF then that squadron can easily be tasked to deploy outside its theater. This will take forces away from a theater commander-in-chief for up to 90 days at a time reducing his ability to respond to potential requirements. The theater commander-in-chief normally can move his assigned forces within his theater without an NCA approved deployment order. This capability gives him a lot of flexibility, especially when problems arise in his theater. If the squadrons are assigned to an AEF then they are not available to that combatant commander all the time. Certainly another AEF can fill in, but it requires an NCA deployment order which will use valuable time and it will come from all over the globe, which will take more time than

forces already in the theater. Likewise, if the theater commander-in-chief deploys a squadron within his theater for a mission, that squadron may not be available to deploy with the rest of its AEF, causing a shortage of assets in that AEF.

A fifth issue is the focus of five units on humanitarian missions. One of big "selling points" of the EAF concept was that each AEF was able to perform the full range of missions. If only five units are designated for humanitarian missions then there are at least five AEFs not capable of performing the humanitarian mission. This lack of capability makes the rotational scheduling much more difficult.

V. PERSONNEL ISSUES

The most critical factor for both current and future readiness are our men and women that we are privileged to have serving in uniform today. Our people are more important than hardware. We must do whatever is necessary to sustain the quality of those in the ranks, because quality is more important than quantity.

General Michael E. Ryan

Widespread personnel problems resulted from the high tempo of the past few years. These problems started with the reduction in personnel after the Cold War and continued until now. During the force reduction, the number of active duty Air Force personnel dropped almost 39 percent from 607,000 to 371,000.⁶² To compensate for the reduction in forward based troops and the increase in worldwide commitments the “number of people deployed increased four times.”⁶³ Currently in SWA there are 6852 deployed Air Force personnel, in NWA there are 1037 and supporting Bosnia we have 2517. There are also another 3732 personnel deployed for other contingency operations around the globe.⁶⁴ The following paragraphs describe the effect of fewer people and higher tempo.

The Chief Master Sergeant of the Air Force summarized the issue when he recently stated:

In the past, our (temporary duty) commitments were very small because we had a larger role in the Cold War. We had a large presence overseas . . . In the early '90s, we pulled back a lot of the forces from those overseas bases after the Berlin wall came down. (Operations tempo) picked up, because we closed bases and brought troops home. At the same time, air base operations in the desert began picking up. Now, instead of being stationed for a three-year tour in Europe, people are doing 120-day tours.⁶⁵

Acting Secretary of the Air Force, Whitten Peters and CSAF, General Michael Ryan, both believe the ad-hoc nature of deployments in the past took “a toll on Air Force people during frequent, long deployments and on airmen left at home station to fill the void.”⁶⁶

In a statement to the House National Security Committee, Lt Gen Michael McGinty, personnel chief for the Air Force, indicates tempo is the most pressing readiness issue. It does not matter

whether the people deploy overseas or on a training exercise, they are still away from their homes and primary duty stations. A goal of the Air Force is to limit this tempo to no more than 120 days away per year. And when personnel deploy, the workload of those left at home station increases to compensate. Recent surveys indicate the average hours worked per week increased from 47 to 50 over the last year.⁶⁷

Senator Roberts of the Senate Armed Services Committee confirmed that tempo is a problem when he quoted General Harley A. Hughes, USAF (Retired), as assessing “the critical-skill personnel aren’t leaving just for money, although that’s a factor. They’re leaving because they can’t justify to their families the need for being away from home half the year, when US interests aren’t really at stake.”⁶⁸ Air Combat Command believes the situation is so bad that several career fields will soon hit all-time lows in retention.⁶⁹

Surveys show people are leaving the Air Force for many reasons, including retirement benefits, unequal pay with civilian counterparts and excessive workload.⁷⁰ The net effect of not addressing these issues is a loss of personnel. Especially troublesome is the loss of highly trained individuals such as pilots. Major General Donald A. Lamontagne, Commander of the Air Force Personnel Center, explains that the Air Force “has been trying to fix pilot retention with more money—but that’s not the problem. It’s going back and forth to the desert that’s causing the problems . . . so basically we are losing pilots faster than we can train them.”⁷¹ The enlisted ranks are also having problems according to General Ryan who points out the civilian demands for enlisted career fields, especially jobs needing technical expertise are of equal concern in keeping airmen.⁷² Rand Research Institute studies found that being deployed for a month or more on distant operations actually increased reenlistment, but being sent on such a mission more than once in a two year period prompted many to quit the military.⁷³

Positive Personnel Aspects

The important issue in the personnel area is whether EAF implementation will reduce the tempo of Air Force personnel. General Ryan believes it will. One of the underlying requirements for the AEF was to "reduce deployment tempo by building more stability and predictability into the way we schedule our people to respond to contingencies."⁷⁴ Acting Secretary of the Air Force, Whitten Peters, concurred with General Ryan when he recently indicated leaders can reduce deployments through a formal structure with a specific deployment schedule. This spreads deployments more equitably among the total force. Those who were repeatedly called upon to deploy will probably find themselves decreasing their days away from home station and others may find themselves increasing their trips to better spread the burden. The Air Force is also increasing the numbers of personnel in specific specialties. While the Air Force cannot increase total numbers of personnel, they plan to better distribute the personnel available. In some cases military specialties which do not deploy will be replaced by civilians, either government employed or on contract. This will free some positions to convert for AEF support specialties. All told, General Ryan believes he will be able to convert between 5000 and 5500 positions to specialties more appropriate to the AEF.⁷⁵

One of the major initiatives of the EAF is reliance on the guard and reserves to take the pressure off the active forces. The acting Secretary further explained that "supplementing the deployed forces by . . .using Guard and Reserve personnel more effectively could help reduce the average number of temporary duty days from 120 to 90."⁷⁶ Additionally, two Air National Guard fighter wings will convert from general-purpose missions to training pilots.⁷⁷ In doing this, the Guard will be able to train their own pilots instead of using active duty training units as

is done now. The active units will then use the increased capacity to train more active duty pilots and alleviate the expected shortage of 2000 pilots.

Because of the severe personnel problems, a program instituted at the DOD level is to closely monitor the highest tasked specialties and weapons systems. Through this monitoring process, leadership can determine who is deploying most often and attempt to fix the problem. General Henry Shelton, Chairman of the Joint Chiefs of Staff, indicates "we have a global military force policy right now, which identifies 31 of our low-density, high-demand units that we micromanage to try to make sure that we're not breaking that particular part of our force."⁷⁸ Even with the positive potential of the EAF, there are problems.

Negative Personnel Aspects

To reduce tempo, one of two things must occur, either there must be a reduction in deployments or an increase in the number of people available to participate in the deployment. With the EAF concept, the Air Force is trying to do both. They are trying to control deployments, by reducing exercises and helping the National Command Authorities and the theater commanders-in-chief get only what they need for the mission. They are also increasing the number of available people by utilizing the total force and through careful scheduling.

However, contrary to the opinions of the CSAF and the Acting Secretary of the Air Force, the EAF will not provide greater stability and predictability to the entire force. In fact, stability will come primarily to members of the tanker, bomber, and fighter communities in Air Combat Command. The Air Combat Command LDHD assets, as well as units in the other mobile U.S. based commands, Air Mobility Command and Air Force Special Operations Command, will not have a reduced tempo. Pacific Air Forces and our forces in Europe may get some stability, but they are under the control of the theater commander-in-chief, not the Air Force. When one

checks the numbers, only about one third of the deployable Air Force personnel will see more stability and predictability.

Currently LDHD personnel have some of the highest deployment rates in the Air Force (see Table 5). In addition, 30 percent of the Pararescue career field spend more than 120 days of temporary duty each year.⁷⁹ Because of the nature of their specialization, they will continue to suffer the problem of a high tempo. Those personnel in the LDHD units will not see much control in their schedules. This instability will affect job satisfaction, promotions and most importantly, retention, possibly leading to additional losses in critical specialties.

<u>Aircraft Type</u>	<u>Percent above 120 days</u>
U-2	53
E-3	25
RC-135	17
HH-60	26
HC-130	12
ABCCC	43
MH-53J	20
AC-130	10
MC-130E/H	13
MC-130P	28

Table 5. Percent of LDHD weapon systems personnel exceeding 120 days per year TDY⁸⁰

Like the LDHD units, strategic airlift squadrons can expect to be used during every AEF deployment. Therefore the strategic airlift forces will not be able to reduce tempo under the EAF concept. They are currently critically manned with a very high deployment rate. This will certainly continue into the 21st century as the Air Force continues to deploy to the numerous crisis locations around the world.

Another personnel problem will occur in Air National Guard and the Air Force Reserve units. In the EAF concept they will be assigned to specific AEFs also. With firm projected scheduling, there is a belief the members will be able to get time off from their civilian employers to deploy. However, as Desert Storm showed and recent newspaper articles about Kosovo showed, this may not be true. Employers may not be receptive to losing a worker for 90 days out of every 15 months without a selective call up by the President. Additionally, this is a major shift from the norm of the Air National Guard and Air Force Reserve programs, which will more than likely cause some personnel to retire or resign. Loss of these personnel will be harmful when added to the active duty losses we suffer today.

Increasing deployments for the Guard and Reserve may have an unintended consequence of actually hurting the situation further. "If the Reserve deploys more, despite the fact that they do it with volunteers, it can be a disincentive to join. In fact, the reserves are starting to get nervous about their pilot retention rates also."⁸¹ Because of the increase in deployments, reservists or guardsmen may not be able to get time off from work or they may not want to be away from home for seemingly unimportant deployments. The Air National Guard and Air Force Reserve may actually lose people, thereby increasing the burden on the remaining service members who are trying to make the EAF structure work and the pressure on the active forces may actually increase.

Finally, to ensure the personnel needs of the AEFs are met, the Air Force Personnel Center must implement detailed assignment procedures. There are some who believe they will deploy with one squadron for 90 days, return home for a month or two and then be transferred to another shorthanded squadron only to deploy for another 90 days. To make it work, the 10 AEFs will have to be fully manned and trained and because of current Air Force wide personnel shortages,

this simply will not happen.⁸² Normal permanent change of station occurs every three to four years. Over a three year period, if the individual remains in the same unit, they should incur two 90 deployments. However, it is entirely possible that this person will change station at the three-year point, only to get another 90-day deployment rather quickly. This will have the effect of giving this individual a 90 day deployment every year plus whatever time is spent away from home station for exercises, planning, etc.

VI. CONCLUSION

Full spectrum Dominance will be the key characteristic we seek for our Armed Forces in the 21st century.

Joint Vision 2010

The 1990s were a very turbulent time for the U.S. military. The Cold War is over, the Berlin Wall fell, budgets are declining and the economy is booming. This time of significant prosperity and relative peace led the nation to believe a large military was no longer necessary. Elimination of the monolithic threat meant we could reduce defense budgets drastically. However, after several years, evidence suggests that cutbacks may not be appropriate because more than ever, the military is deploying to far away locations to support national objectives. The nation changed from the Cold War strategy of containment to a strategy of engagement. The National Security Strategy defined the plan for the U.S. to remain engaged with the world.

The National Military Strategy refined the engagement policy by developing an overarching concept of military support to accomplish the strategy laid out by the National Security Strategy. At times, national objectives may require only a show of force or an interest on the part of the United States. At other times it may require actual combat operations. In many cases, military force must deploy quickly to stabilize a situation. Clearly, the world environment changed dramatically with the end of the Cold War and the requirements for military forces also changed.

Properly, Air Force leadership undertook the task to evaluate the future requirements of the Air Force, keeping in mind the significant increase in tempo since the Cold War ended. Because of numerous worldwide requirements, the Air Force increased its deployment rates fourfold putting a huge burden on its personnel. In an effort to maintain readiness, exercise rates increased along with the contingency deployments. The Air Force Chief of Staff, General Michael Ryan indicated "our Air Force men and women . . . have done great work in keeping

control of readiness declines despite heavy tasking and tough fiscal constraints.”⁸³ This pace kept up for several years causing a significant retention problem within the force.

To remain relevant, continue supporting national requirements, and reduce the tempo on Air Force personnel, Air Force leaders formalized the EAF concept. General Ryan testified before the Senate Armed Services Committee that “the next step . . . is to ease the heavy tempo burden throughout the force. This, he said, extracts a high price on people and readiness . . . establishing the expeditionary aerospace force, set for Jan 1 [2000] holds promise for relief by giving airmen predictability and stability.”⁸⁴ As we find through the analysis presented in this monograph, the predictability and stability will only be afforded to a portion of the Air Force. LDHD personnel and those filling in when the Guard and Reserve cannot support will still be adversely affected by an excessive tempo.

The intent in building the EAF is to “have agile warfighters, trained in the known but capable of dealing with the unknown, aware that it will not have all the answers but capable of learning what is needed for victory.”⁸⁵ This new way of thinking is very important; the EAF embodies both a mindset and a force structure to allow rapid deployment of forces in response to a crisis. The deploying forces may not have time to thoroughly plan a mission before departing, but will be able to determine the requirements and then react appropriately.

The Chief of Staff explains, the new expeditionary concept requires a light, lean, and lethal force. Light means a reduced airlift requirement; being lean means using agile combat support to operate out of austere locations with minimal resupply; and to be lethal the EAF will create decisive effects and accomplish the mission with minimum resources.⁸⁶ The only additional needs are clearance into the foreign nation and an airfield from which to operate. To be most effective in rapid deployment operations the AEF should deploy to an active airfield, however, if

one is not available, anyplace with some open space and a runway will do. To help aid rapid deployment the theater commanders-in-chief can identify bases for potential use. Overall the EAF concept will provide the commander-in-chief with a robust force in a short time, but there are several issues.

Because command and control is one of the most critical needs of any organization there must be a back up system for the reachback capability. Failure of that critical node, whether by saturation of the circuits or by enemy action could cause devastating effects. RAOC personnel must be isolated from the day-to-day activities at their home stations to fully focus on supporting the forward-deployed forces. Distractions in the RAOC could easily lead to slow support or late support, which could then lead to mission failure. The RAOC must have a full complement of experts from all weapons systems in the AEF. Since the LDHD units are already fully tasked, it would be prudent to increase their manning. A thorough and on-going training program will help ensure Air Force leaders are well prepared to assume the expeditionary mission. And finally, the theater air component commander will need to ensure procedures are in place to effectively utilize the BCD.

The initial structure for the AEF is excellent as a starting point. By assigning units from different bases the Air Force focuses the efforts of each base to deploy it's squadron. This will improve the rapid deployment capability, because while one squadron prepares to deploy they are getting assistance from other squadrons on the same installation. If all deploying units were on the same base, each squadron would be alone to prepare and deploy, taking more time. Converting about 5000 positions into support specialties will have a huge positive impact in the AEF plan. This increase will allow those bases with deploying units to continue functioning

without increasing the burden to those left behind. While the overall effect of the EAF concept is positive, there are some concerns with the structure of the AEFs.

All AEF units need to procure support equipment in conjunction with the AEF of assignment. Each AEF will need to maintain a full set of support equipment such as power carts, stands, tools, aircraft jacks, specialized items, etc. Each flying squadron can deploy with the special tools and equipment designed to work on that specific aircraft. Therefore, each AEF will need to fund for a full set of support equipment or, to make the deployment leaner and lighter, the theater can preposition the equipment. Either way, costs for the AEF will increase.

To keep the AEF lean, the supplies and munitions for the AEF will only support the force for seven days. The support force is relying on additional personnel, spare parts, and supplies from various home stations as coordinated through the reachback function. Supplies will need to account for spare aircraft parts, which will wear out at different rates in various environments, for example, the desert versus the arctic. The supplies will also need to include the various personal equipment items required for deploying personnel. Again, these are not overwhelming problems. Most bases already have personal equipment stocks and the spare parts can be obtained through the robust reachback capability deployed with the AEF.

Obviously a resupply system must be established quickly and it must be able to respond to dynamic combat requirements. The theater combatant commander can reduce resupply requirements by establishing prepositioned stocks either on land or afloat within his theater. Afloat prepositioned stocks would be a flexible source since the ships could use any port in the theater, while land based stocks are limited in the range at which they can be moved easily.

To preclude the possibility of problems through using overseas-based units in the AEFs, the Air Force should only assign CONUS based forces to the AEFs. This allows the theater

commander-in-chief to retain control of all his forces and also prevents political issues from arising when deploying a unit from one foreign country to another.

LDHD units and strategic airlift units should either get more weapons systems or a higher crew ratio. Since it is unlikely the Air Force will buy additional aircraft, the better idea is to increase personnel. This will allow the LDHD and airlift units to stem some tempo problems and better support the AEFs.

All AEFs should have a humanitarian assistance capability. If not, then some AEFs will get tasked heavier than others. The review of the last several years clearly shows a huge increase in humanitarian missions. The five units performing those missions could easily get overwhelmed.

Although there are several concerns and suggested fixes listed above, none will cause the EAF to fail. Restructuring the Air Force developing an expeditionary way of thinking formally institutionalizes the shift away from a Cold War force to a flexible and rapidly deployable aerospace force. The EAF concept offers several important advantages for the theater commander-in-chief:

- Rapid response on-call forces
- Tailored forces to meet “shape” and “respond” requirements
- Robust in-place forces
- Wide spectrum of capabilities
- Improved support to operations plans
- Potential future deployment efficiencies⁸⁷

Global Engagement 97, a joint force wargame held in October and November 1997, demonstrated the complexities facing a joint force engaged in a major theater war with a significant opponent. The summary of the wargame indicates the inherent flexibility, speed,

range and lethality of aerospace forces can be a significant force enhancement and can prove decisive in response to a rapidly advancing and unpredictable opponent. The ability to project forces quickly and over great distances will likely be a common requisite in future conflicts, and aerospace power can meet these demands.⁸⁸

On another occasion, several Air Force units came together in an experiment with ad hoc expeditionary forces. They found the expeditionary force concept would work. As a result, the CSAF indicates:

“The Air Force has developed and demonstrated the concept of an Air Expeditionary Force (AEF) rapidly deployable from the United States. This expeditionary force can be tailored to meet the needs of the Joint Force Commander, both for lethal and non-lethal applications, and can launch and be ready to fight in less than three days. The Air Force will develop new ways of doing mobility, force deployment, protection, and sustainability in support of the expeditionary concept.”⁸⁹

However, there are clear limitations to the AEF. It cannot perform missions more suited to a ground force, but even then it can assist and facilitate the operation. One theater commander-in-chief suggests power projection is an integral part of an expeditionary force. An expeditionary force is like the expeditionary warriors that man it. They have an expeditionary state of mind. They are comfortable with uncertainty and capable of handling adversity. They have an ability to adapt to virtually any situation.⁹⁰

In the final analysis is the complete reorganization of the Air Force, Air National Guard, and Air Force Reserve worth the effort? The answer is yes, the advantages outweigh the problems. The EAF proposal will effectively support the theater commander-in-chief. It will be light, lean, and lethal as well as providing its own robust command and control with trained operational forces, security forces, and effective support. An AEF can be employed or diverted during the deployment by using airborne command and control. They can deploy very rapidly and conduct operations within two days. This rapid deployment capability is probably the most significant

contribution of the AEF. Deploying a tailored force to conduct the specific mission desired by the theater combatant commander in only 48 hours is a tremendous increase in capability over today's "one force fits all" structure. For potential combat, the rapid deployment of aircraft has obvious advantages ranging from deterrence to actual combat missions. For humanitarian missions the rapid movement of aircraft and personnel can be the difference in life and death for those awaiting help. Time will always be a critical commodity in the aftermath of a natural disaster in locating and helping survivors.

Even though the EAF will effectively meet the needs of the theater commander-in-chief, the tempo problem will not be alleviated for a large portion of Air Force personnel. The tempo reduction should occur for the tanker, bomber, and fighter communities as well as some of the support specialties while the airlift, special operations, LDHD, Air National Guard and Air Force Reserve can expect deployments to either remain the same or increase.

In short, the EAF, while not the cure-all, provides a new approach to the way the USAF does business. Technology will be an important tool, but the training and leadership will be the keys. Acting Secretary of the Air Force, Whitten Peters indicates "the expeditionary aerospace force is an evolutionary change for the Air Force, . . . It will affect the way we think and how we organize, train, equip, and sustain aerospace forces. It will also allow us to meet the requirements of the national military strategy and the challenges of a changing global security environment."⁹¹ Implementing the EAF is the right thing for the Air Force to do as we enter the 21st century.

ENDNOTES

¹ Ryan, Michael E., General. "History Behind Expeditionary Aerospace Force Concept." Air Force News Service (Online), usafnews@afnews.af.mil. 25 Aug 1998.

² Revision Author's Draft. Joint Publication 3-0, Doctrine for Joint Operations. 28 Jan 1999.

³ Morris, William, Editor. The American Heritage Dictionary of the English Language. American Heritage Publishing Co., Inc and Houghton Mifflin Company, Boston, MA. 1973, page 473.

⁴ Tactical Air Command Fact Sheet. "TAC's Composite Air Strike Force Tailored for Limited War Use." Army Navy Air Force Journal. 19 Jul 1958, Vol. 95, page 23.

⁵ Ibid., page 23.

⁶ Van Valkenburg, Frederick D., Colonel. "Air Expeditionary Force: The United States Military's Premier Quick Reaction Strike Force Today and Tomorrow." Monograph. United States Army War College, Carlisle Barracks, PA. 7 Apr 98.

⁷ Jaffe, Lorna F., "The Development of the Base Force 1989-1992 ." Joint History Office, Office of the Chairman of the Joint Chiefs of Staff. July 1993, page 16.

⁸ Ibid., page 17.

⁹ Ibid., page 39.

¹⁰ Air Force Magazine. May 1996, page 55.

¹¹ Dorsey, Michael, SSgt. "Ryan Cautions Senators About Military Readiness." Air Force News Service (Online), usafnews@afnews.af.mil. 1 Oct 1998.

¹² Chief of Staff, United States Air Force. Global Engagement: A Vision for the 21st Century Air Force (online), www.xp.hq.af.mil/xpx/21/nuvis.htm. 15 Jan 1999, page 3.

¹³ The White House. A National Security Strategy for a New Century. May 1997, page 6.

¹⁴ The White House. A National Security Strategy for a New Century. May 1997, page 9.

¹⁵ Chairman of the Joint Chiefs of Staff. National Military Strategy of the United States of America, Shape, Respond, Prepare Now: A Military Strategy for a New Era. September 1997, page 3.

¹⁶ Ibid., page 19.

¹⁷ Ibid., page 20.

¹⁸ Ibid., page 20.

¹⁹ Chairman of the Joint Chiefs of Staff. Joint Vision 2010. Washington DC, pages 4-5.

²⁰ Institute for National Strategic Studies, National Defense University. Engaging Power for Peace, 1998 Strategic Assessment 1998, page 138.

²¹ Schafer, Susanne M. "Air Force Reorganizing for 21st Century Warfare." Kansas City Star (Online), www.kcstar.com/sbin/iarecord?NS-doc-path=/vol1/pubs/archive. 5 Aug 1998.

²² Dorsey, Michael, SSgt. "Ryan Cautions Senators About Military Readiness." Air Force News Service (Online), usafnews@afnews.af.mil. 1 Oct 1998.

²³ Ibid.

²⁴ Chief of Staff, United States Air Force. Global Engagement: A Vision for the 21st Century Air Force (online), www.xp.hq.af.mil/xpx/21/nuvis.htm. 15 Jan 1999, page 9.

²⁵ Ibid., page 9.

²⁶ Air Force Magazine. May 1996, page 55.

²⁷ Katzaman, Jim, Senior Master Sergeant. "Air Force Launches into Expeditionary Mission." Air Force News Service (Online), usafnews@afnews.af.mil. 29 Jul 1998.

²⁸ Ryan, Michael E., Gen, Air Force Chief of Staff. "History behind expeditionary aerospace force concept." Air Force News Service (Online), usafnews@afnews.af.mil. 24 August 1998.

²⁹ Yates, Dale, Staff Sergeant. "Cope Shark Key to EAF Employment." Air Force News Service (Online), usafnews@afnews.af.mil. 30 Jan 1999.

³⁰ Air Force Doctrine Document 2, Organization and Employment of Aerospace Power. October 1998, page 34.

³¹ Bird, Julie. Lighter, Faster . . . and Deadlier, New Concepts in Rapid Reaction are put to the Test." Air Force Times, 5 October 1998, page 12.

³² Tirpak, John A. "The Long Reach of On-Call Airpower." Air Force Magazine. Dec 1998, page 24.

³³ Palmer, Jennifer. "Analysis Projects One-Third Cut in Deployments." Air Force Times. 18 Jan 1999, page 14.

³⁴ Table extracted from briefing by Maj Gen Donald G. Cook, Director of Expeditionary Aerospace Force Implementation, HQ USAF. 9 Oct 1998, slide

³⁵ Air Force Magazine. May 1996, page

³⁶ Castellon, David. "Guard Fighting Falcon Wings to Switch Missions." Air Force Times. 22 Feb 1999, page 20.

³⁷ Katzaman, Jim, Senior Master Sergeant. "Air Force Readies Itself for 21st Century." Air Force News Service (Online), usafnews@afnews.af.mil. 7 August 1998.

³⁸ Gruber, David. "Full Range of Communications Tools Support Forces in Harsh Locations." Proquest.umi.com/pqdweb?TS=90658412&Did=000000023110376&Mtd=1. 23 Sep 1998.

³⁹ Air Force Doctrine Document 2, Organization and Employment of Aerospace Power. October 1998, page 34.

⁴⁰ Air Combat Command News Service. "ACC leads Medical Assessment." Air Force News Service (Online), usafnews@afnews.af.mil. 29 Jan 1999.

⁴¹ Table extracted from briefing by General Michael E. Ryan, Air Force Chief of Staff. 2 Apr 1999.

⁴² Katzaman, Jim, Senior Master Sergeant. "Air Force Readies Itself for 21st Century." Air Force News Service (Online), usafnews@afnews.af.mil. 7 August 1998.

⁴³ Palmer, Jennifer. "Two Wings get New Rapid Response roles" Air Force Times. 22 Feb 1999, page 20.

⁴⁴ Ibid.

⁴⁵ Katzaman, Jim, Senior Master Sergeant. "Air Force Readies Itself for 21st Century." Air Force News Service (Online), usafnews@afnews.af.mil. 7 August 1998.

⁴⁶ Donahue, William, Lt Gen. "Commentary: Special Month Focuses on Cyber Responsibilities." Air Force News Service (Online), usafnews@afnews.af.mil. 26 Jan 1999.

⁴⁷ Tirpak, John A. "The Long Reach of On-Call Airpower." Air Force Magazine. Dec 1998, page 24.

⁴⁸ Bird, Julie. Lighter, Faster . . . and Deadlier, New Concepts in Rapid Reaction are put to the Test." Air Force Times, 5 October 1998, page 12.

⁴⁹ Expeditionary Force Questions. Efx.acc.af.mil/background/q_and_a.html. 4 Feb 1999.

⁵⁰ Tirpak, John A. "The Long Reach of On-Call Airpower." Air Force Magazine. Dec 1998, page 25.

⁵¹ Ibid., page 25.

⁵² Ibid., page 26.

⁵³ Ryan, Michael E., Gen. "History Behind Expeditionary Aerospace Force Concept." Air Force News Service (Online), usafnews@afnews.af.mil), 24 Aug 1998.

⁵⁴ Shalikashvili, John M., General, Chairman of the Joint Chiefs of Staff. Joint Vision 2010.

⁵⁵ Bird, Julie. "Quick-Strike Forces Could Reduce Gulf Deployments." Air Force Times. 24 Feb 1997, pg. 10.

⁵⁶ Matthews, William. "Expeditionary Forces Aim to Ease Stress." Air Force Times. 17 August 1998, page 6.

⁵⁷ Barrett, Dave, Lt Col. Air Expeditionary Force briefing to AF/XO. AF/XOXS, 4 Aug 1998.

⁵⁸ Grossman, Elaine M. "Duel of Doctrines." Air Force Magazine. Dec 1998, page 33.

⁵⁹ Ibid., page 31.

⁶⁰ Katzaman, Jim, Senior Master Sergeant. "Air Force Readies itself for 21st Century." Air Force New Service (Online), usafnews@afnews.af.mil). 7 August 1998.

⁶¹ Wilhelm, Charles E., LtGen. "Expeditionary Warfare." Marine Corps Gazette. Jun 1995, pg. 28-30.

⁶² Schafer, Susanne M. "Air Force Reorganizing for 21st Century Warfare." Kansas City Star (Online), www.kcstar.com/sbin/iarecord?NS-doc-path=/vo11/pubs/archive. 5 Aug 1998.

⁶³ Ibid.

⁶⁴ Extract www.afpc.af.mil/readiness/images/worldviewsep98.gif. 25 Sep 1998.

⁶⁵ Davis, M., Senior Airman. "CMSAF addresses top Enlisted Concerns at MacDill." Air Force News Service (Online), usafnews@afnews.af.mil). 28 Jan 1999.

⁶⁶ Katzaman, Jim, SMSgt. "Air Force Readies itself for 21st Century." Air Force News Service (Online), usafnews@afnews.af.mil). 6 Aug 1998.

⁶⁷ McGinty, Michael D., Lt Gen. Statement of Lt Gen Michael D. McGinty, Deputy Chief of Staff, Personnel to the House National Security Committee. www.house.gov/nsc/testimony/105thcongress/3-12-98mcginty.htm. 12 Mar 1998, page 6 of 9.

⁶⁸ Hearing of the Senate Armed Services Committee. Subject: Status of US Military Forces. Federal News Service, Inc. 29 Sep 98.

⁶⁹ Palmer, Jennifer. "Serious Unit Stresses Extend Beyond the 66th." Air Force Times. 29 Mar 1999, page 15.

⁷⁰ Dorsey, Michael, Staff Sergeant. "Ryan Cautions Senators about Military readiness." Air Force News Service (Online), usafnews@afnews.af.mil. 1 Oct 1998.

⁷¹ Hoffman, Timothy, Technical Sergeant. "Retention, assignments, Promotions drive Air Force's Future." Air Force News Service (Online), usafnews@afnews.af.mil. 30 Jan 1999.

⁷² Dorsey, Michael, Staff Sergeant. "Ryan Cautions Senators about Military readiness." Air Force News Service (Online), usafnews@afnews.af.mil. 1 Oct 1998.

⁷³ Matthews, William. "With Deployments, More is not Better." Air Force Times. 1 Mar 1999, page 15.

⁷⁴ Ryan, Michael E., General. "History Behind Expeditionary aerospace Force Concept." Air Force News Service (Online), usafnews@afnews.af.mil. 25 Aug 1998.

⁷⁵ Peters, Whitten F. Acting Secretary of the Air Force. EAF Press Conference, 4 Aug 1998.

⁷⁶ Prichard, Joan. "Acting SECAF Visits Maxwell." Air Force News Service (Online), usafnews@afnews.af.mil. 20 Aug 98.

⁷⁷ Castellon, David. "Guard Fighting Falcon Wings to Switch Missions." Air Force Times. 22 Feb 1999, page 20.

⁷⁸ Hearing of the Senate Armed Services Committee. Subject: Status of US Military Forces. Federal News Service, Inc. 29 Sep 1998.

⁷⁹ Pulley, John. "System Monitors Troops' Time Away" Air Force Times. 7 Sep 1998, page 4.

⁸⁰ Extracted from Joint Staff Joint Mission Readiness Report. File usaf40.ppt, prepared 9 Jul 1998. /dj9j38re/readiness/.

⁸¹ Smith, Leslie. "Will Active-Duty Burdens Drive too many Reservists Away?" Air Force Times. 22 Feb 1999, page 54.

⁸² Smith, Leslie. "Readers Skeptical of Reorganization." Air Force Times. 21 Sep 1998, page 70.

⁸³ "Joint Chiefs Request More Funds for Readiness." Air Force News Service (Online), usafnews@afnews.af.mil. 12 Jan 1999.

⁸⁴ Ibid.

⁸⁵ Institute for National Strategic Studies, National Defense University. Engaging Power for Peace, 1998 Strategic Assessment. 1998, page 231.

⁸⁶ Katzaman, Jim, SMSgt. "Air Force Launches into Expeditionary Mission." Air Force News Service (Online), usafnews@afnews.af.mil. 29 Jul 1998.

⁸⁷ Extracted from Air Force Future Briefing presented to Army-Air Force Warfighter Talks, Ft Benning, GA by Brig Gen Norton Schwartz, Director, HQ USAF Strategic Planning . Jan 1999.

⁸⁸ Executive Summary. Global Engagement 1997. United States Air Force. Page 1.

⁸⁹ Chief of Staff, United States Air Force. Global Engagement: A Vision for the 21st Century Air Force (Online), www.xp.hq.af.mil/xpx/21/nuvis.htm. 15 Jan 1999, page 13.

⁹⁰ Wilhelm, Charles E., Lt Gen. "Expeditionary Warfare." Marine Corps Gazette. Jun 1995, page 29.

⁹¹ Katzaman, Jim, Senior Master Sergeant. "Air Force Launches into Expeditionary Mission." Air Force News Service (Online), usafnews@afnews.af.mil. 29 July 1998.

BIBLIOGRAPHY

Books

The American Heritage Dictionary of the English Language. American Heritage Publishing Co., Inc and Houghton Mifflin Company, Boston, 1973.

Institute for National Strategic Studies, National Defense University. Engaging Power for Peace, 1998 Strategic Assessment 1998.

Monographs

Neubauer, John A., Lt Col, "Air Expeditionary Forces: Providing Operational Alternatives" Monograph. United States Naval War College, Newport, RI. 14 Jun 1996.

Van Valkenburg, Frederick D., Col, "Air Expeditionary Force: The United States Military's Premier Quick Reaction Strike Force 'Today and Tomorrow'" Monograph. United States Army War College, Carlisle Barracks, PA. 7 Apr 1998.

Atkins, Sheryl G., Lt Col, "Air Expeditionary Force: What you need, when you need it" Monograph. United States Naval War College, Newport, RI. 19 May 1997.

Fisher, C. Maj, "Air Force Core Competency: Global Attack, What it means to Operational Commanders" Monograph. United States Naval War College, Newport, RI. 7 Feb 1997.

Articles and Periodicals

Air Combat Command News Service. "ACC leads Medical Assessment." Air Force News Service (Online), usafnews@afnews.af.mil. 29 Jan 1999.

Air Force Magazine. May 1996, pg. 15-75.

Associated Press. "Air Force Restructure to Limit Overseas Deployments." The Kansas City Star. 7 Mar 1999, pg. A11.

Bird, Julie. "Quick-Strike Forces Could Reduce Gulf Deployments." Air Force Times. 24 Feb 1997, pg. 10.

Bird, Julie. Lighter, Faster . . . and Deadlier, New Concepts in Rapid Reaction are put to the Test." Air Force Times. 5 Oct 1998, pg. 12-14.

Castellon, David. "Guard Fighting Falcon Wings to Switch Missions." Air Force Times. 22 Feb 1999, pg. 20.

Davis, M., SrA. "CMSAF Addresses Top Enlisted Concerns at MacDill." Air Force News Service (Online), usafnews@afnews.af.mil. 28 Jan 1999.

Donahue, William, Lt Gen. "Commentary: Special Month Focuses on Cyber Responsibilities." Air Force News Service (Online), usafnews@afnews.af.mil. 26 Jan 1999.

Dorsey, Michael, SSgt. "Ryan Cautions Senators about Military Readiness." Air Force News Service (Online), usafnews@afnews.af.mil. 1 Oct 1998.

Grossman, Elaine M. "Duel of Doctrines." Air Force Magazine. Dec 1998, pg. 30-34.

Gruber, David. "Full Range of Communications Tools Support Forces in Harsh Locations." Proquest.umi.com./pqdweb?TS=90658412&Did=000000023110376&Mtd. 23 Sep 1998.

Hoffman, Timothy, TSgt. "Retention, Assignments, Promotions Drive Air Force's Future." Air Force News Service (Online), usafnews@afnews.af.mil. 30 Jan 1999.

"Joint Chiefs Request More Funds for Readiness." Air Force News Service (Online), usafnews@afnews.af.mil. 12 Jan 1999.

Johnson, Ray, TSgt. "Expeditionary Concept Thrives at Aviano." Air Force New Service (Online)), usafnews@afnews.af.mil. 15 Jun 98.

Katzaman, Jim, SMSgt. "Air Force Readies itself for 21st Century." Air Force News Service (Online), usafnews@afnews.af.mil. 7 August 1998.

Katzaman, Jim, SMSgt. "Air Force Launches in Expeditionary Mission." Air Force News Service (Online), usafnews@afnews.af.mil. 29 Jul 1998.

Katzaman, Jim, SMSgt. "Air Force seeks stress reduction in high-tasked units." Air Force News Service (Online), usafnews@afnews.af.mil. 3 Jul 1997.

Looney, William R. III, Brig Gen. "Air Expeditionary Force: Taking the Air Force into the Twenty-First Century." Airpower Journal, Winter 1996, pg. 4-9.

Looney, William R., III, Brig Gen. "The Expeditionary Air Force." Air Force Magazine. Jun 97, pg. 31.

Matthews, William. "Expeditionary Forces Aim to Ease Stress." Air Force Times. 17 Aug 1998, pg. 6.

Matthews, William. "Home alone: Deployments Mean More Work for Those Left Behind-- and for Some, an Incentive to Get Out." Air Force Times. 23 Mar 1998, pg. 12-14.

Matthews, William. "New Force Builds up in the Gulf." Air Force Times. 1 Dec 1997, pg. 6.

Matthews, William. "With Deployments, More is not Better." Air Force Times. 1 Mar 1999, pg. 15.

Moorman, Thomas S., Jr., Gen, Air Force Vice Chief of Staff. Interview for Air Force News. www.af.mil/news/airman/0497/global2.htm. 23 Sep 1998.

Nolan, Dave, MSgt. "Core Competencies." Airman. Jan 1999, pg. 2-13.

Palmer, Jennifer. "Analysis Projects One-Third Cut in Deployments." Air Force Times. 18 Jan 1999, page 14.

Palmer, Jennifer. "EAF: Who, What, Where, and How." Air Force Times. 15 Mar 1999, pg. 8-9.

Palmer, Jennifer. "Serious Unit Stresses Extend Beyond the 66th." Air Force Times. 29 Mar 1999, page 15.

Palmer, Jennifer. "Two Wings get New Rapid Response roles" Air Force Times. 22 Feb 1999, pg. 20.

Prichard, Joan. "Acting SECAF Visits Maxwell." Air Force News Service (Online), usafnews@afnews.af.mil. 20 Aug 1998.

Pulley, John. "Superbase: Would fewer, Larger Bases Relieve the Strain of Frequent Deployments?" Air Force Times, 25 May 1998, pg. 12-14.

Pulley, John. "System Monitors Troops' Time Away." Air Force Times. 7 Sep 1998, pg. 4.

Ryan, Michael E., Gen. "Evolving to an Expeditionary Aerospace Force." Commander's NOTAM 98-4 (Online), 28 Jul 1998, pg. 1-2.

Ryan, Michael E., Gen. "History Behind Expeditionary Aerospace Force Concept." Air Force News Service (Online), usafnews@afnews.af.mil. 24 Aug 1998.

Schafer, Susanne M. "Air Force Reorganizing for 21st Century Warfare." Kansas City Star (Online), www.kcstar.com/sbin/iarecord?NS-doc-path=/vo11/pubs/archive-98/9808/980805.9/24/98. 5 Aug 1998.

Smith, Leslie. "Readers Skeptical of Reorganization." Air Force Times. 21 Sep 1998, page 70.

Smith, Leslie. "Will Active-Duty Burdens Drive too many Reservists Away?" Air Force Times. 22 Feb 1999, pg. 54.

Snaible, Eric, Maj. "EAF's Combat Support Sourced at Hurlburt Conference." Air Force News Service (Online), usafnews@afnews.af.mil. 10 Feb 1999.

Tactical Air Command Fact Sheet. "TAC's Composite Air Strike Force Tailored for Limited War Use." Army-Navy-Air Force Journal. Vol. 95, 19 Jul 1958, pg. 23.

Tirpak, John A. "Expeditionary Air Force Takes Shape." Air Force Magazine. Jun 1997, pg. 28-33.

Tirpak, John A. "The Long Reach of On-Call Airpower." Air Force Magazine. Dec 1998, pg. 20-26.

Tirpak, John A. "First Force." Air Force Magazine (Online), www.afa.org/magazine/21_century/first_force/first_force.html, Sep 1996.

Tirpak, John A. "Working the Optempo Problem." Air Force Magazine. Dec 1997, pg. 21-22.

"Unified Commands Shaken Up." Air Force Times, 21 Jul 1971, pg. 4.

Wages, Brian E., Col (Ret). "First with the Most: USAF's Air Expeditionary Force takes the Offensive on Power Projection." Armed Forces Journal International, Sep 1996, pg. 66-71.

Wilhelm, Charles E., LtGen. "Expeditionary Warfare." Marine Corps Gazette. Jun 1995, pg. 28-30.

Bates, Dale, Staff Sergeant. "Cope Shark Key to EAF Employment." Air Force News Service (Online), usafnews@afnews.af.mil. 30 Jan 1999.

Briefings/Speeches

Barrett, Dave, Lt Col. Air Expeditionary Force briefing to AF/XO. AF/XOXS, 4 Aug 1998.

Cook, Donald G., Maj Gen, Director of Expeditionary Aerospace Force Implementation, HQ USAF. "Evolving to an Expeditionary Aerospace Force." Briefing to Airman Talks South 98, 9 Oct 1998.

Extracted from www.afpc.af.mil/readiness/images/worldviewsep98.gif. 25 Sep 1998.

Joint Staff, J-3. Joint Mission Readiness Report. File usaf40.ppt.
nmcc20a.nmcc.smil.mil/dj9j38re/readiness/. 9 Jul 1998.

Peters, Whitten F. Acting Secretary of the Air Force. EAF Press Conference, 4 Aug 1998.

Peters, Whitten F. Acting Secretary of the Air Force. "Today's Challenges, Tomorrow's Vision—Positioning the Expeditionary Aerospace Force for the 21st Century." www.af.mil/news/speech/current/Sph99-01.html. Speech delivered to the Air Force Association Air Warfare Symposium, Orlando, FL. 5 Feb 99.

Ryan, Michael E., Gen., Chief of Staff, USAF. "Expeditionary Aerospace Force for America."

www.af.mil/news/speech/current/Expeditionary_Aerospace_For.html. Keynote address to National Air Force Association Convention, Washington DC 14 Sep 98.

Schnaible, Eric, Maj. USAF Public Affairs Guidance--USAF Readiness. 30 Sep 1998.

Schwartz, Norton, Brig Gen, Director, HQ USAF Strategic Planning. "Air Force Future." Army- Air Force Warfighter Talks, Ft Benning, GA. 7-8 Jan 1999.

Reports

Troxell, John F. Col. "Force Planning in an Era of Uncertainty: Two MRCs as a Force Sizing Framework." Strategic Studies Institute Report. United States Army War College, Carlisle Barracks, PA. 15 Sep 97.

Official Publications

Air Force Doctrine Document 1. Air Force Basic Doctrine. September 1997.

Air Force Doctrine Document 2. Organization and Employment of Aerospace Power. www.hqafdc.maxwell.af.mil/doctrine/pdf/afdd2.pdf. October 1998.

"Aerospace Expeditionary Forces." Air Force Issues Papers (Online), www.af.mil/lib/afissues/1997/issue13.pdf. 1 Oct 98.

Air Force Manual 1-1. Basic Aerospace Doctrine of the United States Air Force, Volume I. Washington DC, U.S. Government Printing Office, March 1992.

Air Force Manual 1-1. Basic Aerospace Doctrine of the United States Air Force, Volume II. Washington DC, U.S. Government Printing Office, March 1992.

Chairman of the Joint Chiefs of Staff. Joint Vision 2010. Washington DC

Chairman of the Joint Chiefs of Staff. National Military Strategy of the United States of America, Shape, Respond, Prepare Now: A Military Strategy for a New Era. September 1997.

Chief of Staff, United States Air Force. Global Engagement: A Vision for the 21st Century Air Force (Online), www.xp.hq.af.mil/xpx/21/nuvis.html. 15 Jan 1999.

Executive Summary. Global Engagement 1997. United States Air Force.

Expeditionary Force Questions. efx.acc.af.mil/background/q_and_a.html. 4 Feb 1999.

Jaffe, Lorna F., "The Development of the Base Force 1989-1992." Joint History Office, Office of the Chairman of the Joint Chiefs of Staff. July 1993.

Revision Authors Draft. "Joint Publication 3-0, Doctrine for Joint Operations." 28 Jan 1999.

The White House. A National Security Strategy for a New Century. May 1997.

Congressional Testimony

Gamble, Patrick K., Lt Gen. Statement of Lieutenant General Patrick K. Gamble, Deputy Chief of Staff, Air and Space Operations, USAF to the House National Security Committee. www.house.gov/nsc/testimony/105thcongress/3-11-98gamble.htm. 11 Mar 1998.

Hearing of the Senate Armed Services Committee. Subject: Status of US Military Forces. Federal News Service, Inc. 29 Sep 1998.

McGinty, Michael D., Lt Gen. Statement of Lieutenant General Michael D. McGinty, Deputy Chief of Staff, Personnel, USAF to the House National Security Committee, www.house.gov/nsc/testimony/105thcongress/3-12-98mcginty.htm. 12 Mar 1998.

Ryan, Michael E., Gen. Statement of General Michael E. Ryan, Chief of Staff, USAF to the Senate Armed Services Committee. 29 Sep 1998.

Ryan, Michael E., Gen. Statement of General Michael E. Ryan, Chief of Staff, USAF to the Senate Armed Services Committee. www.senate.gov/armed_se. 5 Jan 1999.